

MICRON E-940 Fine Grain Graphite

Technical Data Sheet 6011

Product Overview

MICRON E-940 ultra fine grain graphite is suitable for a broad range of electric discharge machining applications that require fine machined detail and superior wear resistance in a variety of service conditions.

Applications

- Blind cavities
- Powdered metal tooling
- Punch and die sets
- Fine detailed electrodes
- Plastic injection molds

Sizes

- 165 x 318 x 635 mm (6.5" x 12.5" x 25") billets

Typical Properties at Room Temperature*

Characteristic	Unit	Value	Unit	Value
Particle Size	inches	<0.00028	µm	<7
Bulk Density	lbs/ft ³	110	g/cm ³	1.76
Specific Resistance	10 ⁻⁴ Ωin	7.2	µΩm	18.3
Thermal Conductivity	Btu/ft-hr-°F	38.7	W/m°K	67
CTE (to 100°C)	10 ⁻⁶ /°F	2.75	10 ⁻⁶ /°C	4.95
Flexural Strength (4-Point)	psi	9,400	MPa	65
Compressive Strength	psi	21,800	MPa	150
Tensile Strength	psi	7,700	MPa	53
Sonic Modulus	10 ⁶ psi	1.67	GPa	11.5
Hardness	Shore	72	Rockwell "L"	89
Purity (Ash)**	ppm	1600	ppm	1600
Gas Permeability	Darcy	0.003	Darcy	0.003

Notes:
 * Properties listed are typical and cannot be used as accept/reject specifications
 ** For applications requiring low ash, a purified version of this grade is available

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Redefining limits